

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/587,312  
Source: IFWP  
Date Processed by STIC: 8/7/06

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 08/07/2006

PATENT APPLICATION: US/10/587,312

TIME: 09:44:56

Input Set : A:\4240-145 Sequence Listing.txt

Output Set: N:\CRF4\08072006\J587312.raw

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3 <110> APPLICANT: PAEK, Nam-Chon
4      KOH, Hee-Jong
6 <120> TITLE OF INVENTION: A NOVEL STAY-GENE AND METHOD FOR PREPARING STAY-GREEN
TRANSGENIC
7      PLANTS
9 <130> FILE REFERENCE: 4240-145
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/587,312
12 <141> CURRENT FILING DATE: 2006-07-26
14 <150> PRIOR APPLICATION NUMBER: PCT/KR2005/000104
15 <151> PRIOR FILING DATE: 2005-01-12
17 <150> PRIOR APPLICATION NUMBER: 10-2004-0012026
18 <151> PRIOR FILING DATE: 2004-02-23
20 <160> NUMBER OF SEQ ID NOS: 58
22 <170> SOFTWARE: PatentIn version 3.3
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 825
26 <212> TYPE: DNA
27 <213> ORGANISM: Oryza sativa
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34 cgctgccgct acgtcgtgcc gagggcgagg ctgttcgggc cggcgatctt cgaggcgctcg      180
36 aagctgaagg tgctgttcct gggggtggac gaggagaagc accagcaccg ggggaagctg      240
38 ccgcggacgt acacgctgac gcacagcgac gtgacggcga ggctgacgct ggcgggtgctg      300
40 cacaccatca accgggcgca gctgcagggg tggtaacaac agctgcagcg ggacgaggtg      360
42 gtggcggagt ggaagaaggt gcagggccac atgtcgtctg acgtccactg ccacatctcc      420
44 ggcggccacg tcctcctcga cctcatcgcc ggcctccgct actacatctt ccgcaaggag      480
46 ctccccgtgg ttctgaaggc gttcgtccac ggcgacggca acctgttcag ccggcaccgc      540
48 gagctggagg aggccacggg gtgggtctac ttccactcca acctcccacg cttcaaccgc      600
50 gtcgagtgtc ggggcccgcg ccgcgacgcc ggagcgccgc ccgaggaaga cgacgccgtc      660
52 gccgcgcgcg cggccgagga ggcggcggcg gagcagatgc ccgcggcccg cgagtggccg      720
54 cggcgggtgc cggggcagtg cgactgctgc ttcccgccat acagcctcat cccctggccg      780
56 caccagcacg acgtcgccgc cgccgacggc cagccgcagc agtga                      825
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60 <211> LENGTH: 846
61 <212> TYPE: DNA
62 <213> ORGANISM: Hordeum vulgare
64 <400> SEQUENCE: 2
65 atggccatcg ccgctgcgcg tggcgccctc accatgtccc tgctccccat ctgcgcacctc      60
67 aagcagctgc agctgcagcg gcgcgcgcgc cccggggcggg tgctcgtgct cggccgcgcg      120
69 aggcgacacg tcgtgccgag ggcgcggctg tttgggtccg ccactcttca ggcgtccaag      180
71 ctcaaggtgc tggtcgtggg ggtggacgag gagaagcacc cggggaagct gccccggacc      240
73 tacacgtca cccacagcga cgtgacggcg cggctgacgc tggccgtgtc gcacaccatc      300
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81  gttctgaagg  cgttcgtgca  cggcgacggc  agcctgttca  gccagcacc  ggagctggag  540
83  gaggccacgg  tgtgggtcta  cttccactcg  aacaacccca  acttcaaccg  cgtcgagtgc  600
85  tggggccccc  tcagcgacgc  cggcgcgcca  tacgatgacg  aagccgccgt  cgactcccca  660
87  gccgcccagc  cagccatggc  ggccacggcg  gtgaacacgg  ccgcgacga  gcaggcgacg  720
89  cgcgcgggccc  agtggccgcg  gcggagcccc  gggcagagcg  actgctgctt  cccgcgggag  780
91  tgctcatccc  cctggccgca  cgagcacgag  atggccgccg  acgcccggca  ggcgcggccc  840
93  cagtga
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97  <211> LENGTH: 798
98  <212> TYPE: DNA
99  <213> ORGANISM: Triticum aestivum
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104 cagcggcgca  cgcggctcgc  cggcgcgggc  cccgggaagg  tgctcgtgct  cggccgccgg  120
106 aggcgacacg  tcgtgccgag  ggcgcggtcg  ttggcccg  ccattctcga  ggctccaa  180
108 ctcaaggtgc  tgttcgtggg  gatggacgag  gagaagcacc  cgggcaagct  gcccggacc  240
110 tacacgtc  cccacagcga  cgtgacggcg  cggctgacgc  tggcggtgtc  gcacaccatc  300
112 cagccgcgc  agctgcaggg  ctggtacaac  cgctgcagc  gggacgaggt  ggtggccgaa  360
114 tggagaagg  tgcagggcgc  catgtcgcctg  cacgtccact  gccacatctc  cggcggccac  420
116 ttctgtctcg  acctcatcgc  gccgtctcgc  tactacatct  tccgcaagga  gctccccgtg  480
118 gttctgaagg  cgttcgtgca  cggcgacggc  agcctgttca  gccagcacc  ggagctggag  540
120 gaggccacgg  tgtgggtcta  tttccactcc  aacaacccca  acttcaaccg  cgttcagtgc  600
122 tggggccccc  tcgcgaagcc  gcgggccccta  gacaacaaga  cgcgcagcgc  gccgtgccc  660
124 caaggcgacg  cgggggacaa  aaaggcaatg  gatcgggcag  cgcgcggggg  gtccggggg  720
126 atggaatgtt  tttccgccc  gaatcctatc  cctggcccaa  gaattcaa  gccccacc  780
128 cgcagggccc  cccaataa
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132 <211> LENGTH: 795
133 <212> TYPE: DNA
134 <213> ORGANISM: Triticum aestivum
136 <400> SEQUENCE: 4
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139 cagcggcgca  cgcggctcgc  cggcgcgctc  cccgggaagg  tgctcgtgct  cggccgccgc  120
141 aggcgccacg  tcgtgccgag  ggcgcggtcg  ttgggtccg  ccattctcga  ggctccaa  180
143 ctcaaggtgc  tgttcgtggg  ggtggatgag  gagaagcacc  cgggcaagct  gcccgggacc  240
145 tacacgtc  cccacagcga  cgtgacggcg  cggctgacgc  tggcggtgtc  gcacaccatc  300
147 cagccgcgc  agctgcaggg  ctggtacaac  cgctgcagc  gggacgaggt  ggtggccgag  360
149 tggagaagg  tgcagggcgc  catgtcgcctg  cacgtccact  gccacatctc  cggcggccac  420
151 ttctgtctcg  acctcatcgc  gccgtccgc  tactacatct  tccgcaagga  gctccccgtg  480
153 gttctgaagg  cgttcgtgca  cggcgacggc  agcctgttca  gccagcacc  ggagctggag  540
155 gaggccacgg  tgtgggtcta  cttccactcc  aacaacccca  acttcaaccg  cgtcgagtgc  600
157 tggggccccc  tcgcgatgcc  gcgcgccta  gacgacgaga  cgcacgcga  ctcccaccg  660
159 cgacgcaccg  tgccactgca  cgacgacagc  cgtcgcgcgg  gcagtgcgcc  gggggcccg  720
161 gcattggatg  gtgttcgcga  aatgctatc  cctggcgcg  acccaattgc  cgccaaccg  780
163 caggggcccc  aataa
166 <210> SEQ ID NO: 5
167 <211> LENGTH: 846

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168 &lt;212&gt; TYPE: DNA

169 &lt;213&gt; ORGANISM: Zea mays

171 &lt;400&gt; SEQUENCE: 5

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174	cagcaaggcg	cgggcgccgt	ggtcgtgttc	cagcggcgcc	cctgggacgc	gcggcgagg	120
176	cgatacgtcg	tcccagcggc	gaggctgttc	gggcccgcga	tcttcgaggc	gtccaagctg	180
178	aaggtgctgt	tcctgggcgt	ggacgagggg	agcagcaagc	atctgcatgc	gcaccaccgc	240
180	gcgcccggcg	cgctgctgcc	gcggacgtac	acgctgacgc	acagcgacgt	gacggccagc	300
182	ctgacgctcg	cgtctccca	caccatcaac	cgcgcgcagc	tgcagggtcg	gtacaaccgc	360
184	ctgcagcgcg	acgaggtggt	ggccgagtgg	aagaaggtgc	gcggccggat	gtcgtgcac	420
186	gtgcactgcc	acatctccgg	cggacacttg	ctcctggacc	tcatcgccgg	cctccgctac	480
188	tacatcttcc	gcaaggagct	ccccgtggtg	ctcgaggcgt	tcgtgcacgg	cgacggcgac	540
190	ctgttcagcc	gtcaccggga	gctggaggaa	gccacggtgt	gggtctactt	ccactccaac	600
192	ctggcccgtc	tcaaccgcgt	cgagtgtgtg	ggtccgctcc	gcgacgccgc	cgcccccgcg	660
194	cccgccgagg	acgactccac	cgcgcgggcc	gccgcttcca	tcgccatgga	gggccagatg	720
196	cccggtggcg	agtggccgca	ccggtgtccc	cagcagtgcg	actgctgctt	cccgcgcgac	780
198	agcctcatat	cctggccgaa	cgagcaagac	atggccgccc	ccgccggcca	ggtccgacag	840
200	cagtag						846

203 &lt;210&gt; SEQ ID NO: 6

204 &lt;211&gt; LENGTH: 825

205 &lt;212&gt; TYPE: DNA

206 &lt;213&gt; ORGANISM: Zea mays

208 &lt;400&gt; SEQUENCE: 6

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211	cagcagcacg	gcgcggggcg	catgaggcgg	cggccctggg	tcgcgcggcg	gaggcgatac	120
213	gtcgttccga	cggcgaggct	gttcggggcg	gcgatcttcg	aggcgtcgaa	gctgaagggtg	180
215	ctgttccttg	gcgtggacga	cgaggcgggc	agcaagcagc	acgggcccgt	gccgcggacg	240
217	tacacgctga	cgcacagcga	cgtgacggcc	aggctgacgc	tcgccgtctc	gcacaccatc	300
219	aaccgcgcgc	agctgcaggg	ctggtacaac	cgcctgcagc	gcgacgaggt	ggtggccgag	360
221	tggagaagg	tgcgcggccg	gatgtcgctg	cacgtgcact	gccacatctc	cggcgggccac	420
223	ttcctgctcg	acctcatcgc	gggcctccgc	tacgtcattt	tcgcgaagga	gctccccgtg	480
225	gtgctcaagg	cgttcgtgca	cggcgacggc	gacctgttca	gccggcacc	ggagctggag	540
227	gaggccacgg	tgtgggtcta	cttccactcc	aacctggctc	gcttcaaccg	cgtggagtgc	600
229	tgggggtccg	tccgcgacgc	cgcgcgccc	gccgaggacg	actccaccgc	gccgcccgcg	660
231	gcctccaact	ccaaggaggc	cggccagatg	atggccatgt	gcgagtggcc	gcaccggtgt	720
233	ccccagcagt	gcggctgctg	cttcccgcgc	cacagcctca	tcccctggcc	gaacgagcac	780
235	gacatggccg	ccgcagatgc	ctccggctcc	gcccacacgc	agtag		825

238 &lt;210&gt; SEQ ID NO: 7

239 &lt;211&gt; LENGTH: 801

240 &lt;212&gt; TYPE: DNA

241 &lt;213&gt; ORGANISM: Sorghum bicolor

243 &lt;400&gt; SEQUENCE: 7

244	atggccgcag	ccactgccgc	cgcgcgttct	accatgtccc	tgcccccgat	ctcccagctc	60
246	aggcagcagc	agcacggcgc	gggcgcgctg	gtcgtgttcc	ggcggcgggc	ccgggacgcg	120
248	cggcgaggcg	gatacgtcgt	gccgacggcg	aggctgttcg	ggccggcgat	cttcgaggcg	180
250	tccaagctga	aggtgctgtt	cctgggcgtg	gacgaggaga	gcaacaacaa	gcacgggcac	240
252	ccgacgacgc	cgtcgccgac	ttccccgcgc	ctgccgctac	tgcgcgggac	gtacacgctg	300
254	acgcacagcg	acgtgacggc	cagcctgacg	ctggccgtgt	cccacaccat	caaccgcgcg	360
256	cagctgcaag	ggtggtacaa	ccgcctgcag	cgggacgagg	tggtggcgga	gtggaagaag	420

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260 ttcagccggc acccgagct ggaggatgcc ccggtgtggg tctacttcca ctccaacctg 540
262 acccgcttca accgcgtcga gtgctggggg ccgctgcgcg acgccgcgcg gccgccggcc 600
264 gaggacgact ccaccgcgcg ggccgcgcgc tccaacaagg atgggcagat gccgcccgctg 660
266 ggcgagtggc cgtaccgggtg tccccagcag tgcgactgct gttccccgcc gcacagcctc 720
268 atccccctggc cgaacgagcg cgacatggcg gccgcgcgcg ccgatgcctc ctccgcgcgc 780
270 ggccaggccc aacagcagta g
271 <210> SEQ ID NO: 8
272 <211> LENGTH: 786
273 <212> TYPE: DNA
274 <213> ORGANISM: Glycine max
275 <400> SEQUENCE: 8
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277 ccgcaccaca attctctttt tccctactgt ggaagacggg tcgggaagaa gaacaaagca 120
278 atgggttctg ttgcaagggt gttcgggcca gccatatttg aagcctcaaa actgaagggt 180
279 ttgttcttag gagtggacga aaataagcac ccaggaaatc tccaaggac ttatacgcta 240
280 acccatagtg atataaccgc taagctcacc ttggcaatct ctcaaaccat aaataattct 300
281 cagctgcagg ggtggtacaa cagatttcaa agggacgaag tgggtggcaca gtggaaaaag 360
282 gtgaagggaa ggatgtctct gcacgttcac tgccacatta gtggaggtca ttttctcttg 420
283 gatataattag caagggttaag atacttcac ttttgcaagg agtaccagt ggtgttgaag 480
284 gccgtcgctc acggcgatga aaacctattc aacagctacc cagaattgca agatgccttg 540
285 gtttggggtct actttcactc aaacattcca gaattcaaca aggtggaatg ttggggccca 600
286 ctgaaggaag cgtcagcacc cacagggtgg gtccaggagg aggggttggc aattccacag 660
287 ccattgccaag aagaatgcc atgttgcttt ccaccgctta cgttgagccc tattcagtgg 720
288 tctaaacaag ttcccagccg ccattacgaa cttgtgatg ggattgggac ccaacaaaat 780
289 ctataa
290 <210> SEQ ID NO: 9
291 <211> LENGTH: 816
292 <212> TYPE: DNA
293 <213> ORGANISM: Glycine max
294 <400> SEQUENCE: 9
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296 ccgcgtcaca attctctttt tccctactac ggaagacgcg tcgggaagaa gaacaaagca 120
297 atgggttctg ttgctagggt gttcgggcca gccatatttg aagcctcaaa gcttaagggt 180
298 ttattcttag gagtggacga aaataaacac ccaggaaatc tccaaggac ttatactcta 240
299 acccatagtg atataaccgc taagctcacc ttggcaatct ctcaaaccat aaataattct 300
300 cagttacagg ggtggtacaa cagattgcaa agggacgaag tgggtggcaca gtggaagaag 360
301 gtgaagggaa agatgtctct gcacgtacac tgccacatca gtggtggtca ttttctctta 420
302 gatataattag caaggttacg atacttcac ttttgcaagg agtaccagt ggtgttgaag 480
303 gccgtggctc acggcgacga aaacctattc aacaactacc cagaattgca agatgccttg 540
304 gtttggggttt actttcactc aaacattcca gaattcaaca aggtggaatg ttggggccca 600
305 ctgaaggaag cgtcagcacc aatagggtgg gccaaagga agagtgaagc agaaactctt 660
306 ctgaaggaag agggcttggc aattccacag ccattgccaag aggaatgcga atgttgcctt 720
307 ccaccgctga cgttaagccc aattcagtgg tctcaacaag ttcccagcca ccattacgaa 780
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309 <210> SEQ ID NO: 10
310 <211> LENGTH: 825
311 <212> TYPE: DNA
312 <213> ORGANISM: Vitis vinifera

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348 &lt;400&gt; SEQUENCE: 10

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351 caccaaagtt ctctcttcgt ttgtcgaaga agaccaaaga agagtaacct tgcttttcct      120
353 gccgcaaggc tgtttggtcc tgcaattttc gaagcttcaa agcttaaggt tctgtttttg      180
355 ggagtggatg agaagaagca cccaggggaag ctctctagaa cttacacgct tacgcatagt      240
357 gacataacat ctaaactcac tctggctata tctcaaacta taaacaactc tcagttgcag      300
359 ggggtggcca acagattaca aagagatgag gtgggtggcac aatggaagaa agtgaaagac      360
361 cagatgtctc tgcattgtga ctgccacata agtggaggcc atttccttct agatttgtgc      420
363 gctaaactta gatacttcac cttctgcaaa gagcttccag tggttttgaa ggcttttggt      480
365 ctgggagatg gcaacctgct caacaattac ccagaattac aggaagcttt ggtttggggt      540
367 tacttttact cgaacctccc agaattcaat agagtagaat gctggggggc gctcaataat      600
369 gcagcggcgc ctctctctcc tgccgcgggt ggtggcgggt gtaggggtga ggcacaccag      660
371 gacatgaggc aggtggaacc atcaagcaaa tgggagaggc cggaagagcc atgcatggag      720
373 aactgtacat gttgcttccc accaatgagc ctcatcccat ggtcacaaga tctcgcccat      780
375 gaaaatattc atgataccca aaagggatta cagcagcaaa cctga                      825

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378 &lt;210&gt; SEQ ID NO: 11

379 &lt;211&gt; LENGTH: 843

380 &lt;212&gt; TYPE: DNA

381 &lt;213&gt; ORGANISM: Lactuca sativa

383 &lt;400&gt; SEQUENCE: 11

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386 aatcatcaaa acaatccggt ttttactaac aaaagacgaa agctcaagag gaatcaagcc      120
388 ctagtctccg ttgcaagatt atttgggect tcgatctttg aagcttcaaa gttgaagggt      180
390 ttgtttctag gagttgacga gaagaagcat cctggaaaac ttccaagaac atatacatt      240
392 acacatagtg atatcacgct taaattgact ctggcaatct ctcaaactat caataattct      300
394 cagttgcagg gttggtataa ccaattatac agagatgaag tggtagcaga gtggagaaaa      360
396 gtgaaaggga atatgtctct tcatgttcat tgtcacataa gtcgtggcca ttttcttctt      420
398 gatttgtgtg ctgactcag gttcttcac ttcaccaaag aactccctct ggtgttgaag      480
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402 gtttgggttt actttcactc aaacattcaa gaattcaata ggggtgaatg ttgggggcca      600
404 ctgagagaag cagtgggacc cttatccacc accacttcat catcatcatc atcatcatta      660
406 tctgaatcca ccattgctga agctggagaa ggatcaaaca attgggagat cccaaagcca      720
408 tgtctagaag catgtgcatg ttgctttcca ccgatgaggt caatcccatg gtcacatgat      780
410 cttgtgaaga atcaagacga tgatgatggt gccaccacc aagggttgca acaaaaagct      840
412 tga                      843

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415 &lt;210&gt; SEQ ID NO: 12

416 &lt;211&gt; LENGTH: 873

417 &lt;212&gt; TYPE: DNA

418 &lt;213&gt; ORGANISM: Pinus taeda

420 &lt;400&gt; SEQUENCE: 12

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423 gatgtacgga tttcgtctgc accacagaat tcacagtctc agttcaaaag gaaatcgaag      120
425 ataaagcttt cctccagggt tctggccagc gagagcagct ggaatggcct ggtcgcgcat      180
427 cagttacagt gcaataacag acatcgaact aatagcagct tccccgatc caccagtcgt      240
429 gtgggtggcg gattgttttg gcttgcacac ttcaggcat cgaagctcaa ggttctatct      300
431 cttggaacac atgaagagaa acatcctgcg catcttccca ggacttatac gctcacacac      360
433 agcgacatca cggccaaatt aacgctggct ttttctcaaa caatcaataa agatcaggga      420
435 tgggtataaca ggttacagag agacgaagtt cttgcgcagt ggaagaaatc tcagggcaaa      480
437 atgtctctgc acgttctact tcacatcagc ggaggtcact ggctcctgga cgccattgct      540

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L:11 M:270 C: Current Application Number differs, Replaced Current Application Number